

Putting Prevention into Practice

An Evidence-Based Approach

Serologic Screening for Genital Herpes Infection

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► See related U.S. Preventive Services Task Force Recommendation Statement at <http://www.aafp.org/afp/2017/0615/od1.html>.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and the supporting documents on the USPSTF website (<http://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/genital-herpes-screening1>.

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CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz on page 764. Author disclosure: No relevant financial affiliations.

Case Study

C.D. is a 23-year-old woman who presents to your office for her first prenatal visit. She is in the eighth week of her first pregnancy. She tested negative for sexually transmitted infections (STIs) two years ago, and she has not had a new sex partner since that time. Although she reports no symptoms or history of an STI, she asks to be tested for “everything.”

Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF), should this patient be screened for herpes simplex virus (HSV) infection?

- ☐ A. Yes, because all sexually active women 20 to 24 years of age should be screened for HSV infection, as well as chlamydia, gonorrhea, and human immunodeficiency virus infection.
- ☐ B. Yes, because all pregnant women should be screened for HSV infection during the first trimester.
- ☐ C. No, because she has had no new sex partners since she was last screened for STIs.
- ☐ D. No, because the harms of screening for HSV infection in asymptomatic pregnant women outweigh the benefits.
- ☐ E. No, because serologic screening tests should be performed only in asymptomatic pregnant women during the third trimester to reduce the risk of neonatal HSV infection.

2. Which one of the following statements about genital herpes infection is correct?

- ☐ A. HSV infection has a long asymptomatic period during which screening may alter its course.
- ☐ B. Antiviral medications can effectively cure HSV infection when administered before the first outbreak.
- ☐ C. The most widely used, currently available serologic screening test for HSV-2 is not suitable for population-based screening.
- ☐ D. There are no effective interventions to reduce vertical transmission between an infected pregnant woman and her infant during delivery.
- ☐ E. Serologic tests can help to distinguish between oral and genital HSV-1 infections.

3. For which of the following groups of women should HSV serologic testing be considered?

- ☐ A. Women with persistent or ongoing unexplained genitourinary symptoms who have no laboratory evidence of a urinary tract infection.
- ☐ B. Pregnant women, regardless of the presence or absence of symptoms suggestive of genital herpes, to reduce the likelihood of neonatal HSV infection.
- ☐ C. Women who report a history of symptoms consistent with HSV infection and request testing.
- ☐ D. Women who report having sex with women.

Answers appear on the following page.

Answers

1. The correct answer is D. The USPSTF concluded with moderate certainty that the harms, which include anxiety and disruption of personal relationships, outweigh the benefits for population-based screening for genital HSV infection in asymptomatic adolescents and adults, including those who are pregnant.¹ Accordingly, the USPSTF recommends against routine serologic screening for genital HSV infection in these persons. The USPSTF recommends intensive behavioral counseling interventions to reduce the likelihood of acquiring an STI for all sexually active adolescents and for adults at increased risk. The USPSTF has also issued recommendations supporting screening for other STIs, including chlamydia and gonorrhea, hepatitis B virus, human immunodeficiency virus, and syphilis.

2. The correct answer is C. Adequate evidence suggests that the most widely used, currently available serologic screening test for HSV-2 approved by the U.S. Food and Drug Administration is not suitable for population-based screening, based on its low specificity, the lack of widely available confirmatory testing, and its high false-positive rate.² Unlike other infections for which screening is recommended, HSV infection may not have a long asymptomatic period during which screening, early identification, and treatment may alter its course. Antiviral medications may provide symptomatic relief from outbreaks; however, these medications do not cure HSV infection. Although vertical transmission of HSV can occur between an infected pregnant woman and her infant during vaginal delivery, interventions such as cesarean delivery can help reduce transmission. Neonatal herpes infection, while uncommon, can result in substantial morbidity and mortality. Although HSV-1 infection can be identified by serologic tests, the tests cannot determine if the site of infection is oral or genital; therefore, these serologic tests are not useful for screening for asymptomatic genital herpes resulting from HSV-1 infection.

3. The correct answers are A and C. Although the USPSTF recommends screening for chlamydia and gonorrhea in sexually active women 20 to 24 years of age, the USPSTF recommends against routine serologic screening for genital HSV infection in asymptomatic adolescents and adults, including those who are pregnant. However, this recommendation does not apply to patients who may have related signs or symptoms of HSV infection warranting further clinical consideration. Although definitive diagnosis of genital HSV infection is most easily made through observation of genital lesions and, when necessary, confirmatory testing for HSV DNA in swabbed samples, internal lesions may be difficult to observe. HSV serologic testing in women with persistent, unexplained genitourinary symptoms may assist in diagnosis. When definitive diagnosis by observation or HSV DNA testing or viral isolation from active lesions is not possible, serologic testing for HSV antibodies may be appropriate in women who have a history consistent with genital HSV infection. Positive test results are more likely to be true positives given the high pretest probability. Clinicians should remain aware, however, that a false-positive result is still possible. Genital HSV infection is more common among men who have sex with men than among the general adult population.

The views expressed in this work are those of the authors, and do not reflect the official policy or position of the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. government.

REFERENCES

1. US Preventive Services Task Force. Serologic screening for genital herpes infection: US Preventive Services Task Force recommendation statement. *JAMA*. 2016; 316(23):2525-2530.
2. Feltner C, Grodensky C, Ebel C, et al. Serologic screening for genital herpes: an updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2016;316(23):2531-2543. ■